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INTERNATIONAL BULLETIN
OF PLANT PROTECTION

1937 No. 4

DISCOVERIES AND CURRENT EVENTS *

Angola: Locust Movements (*Nomadacris septemfasciata* and *Locusta migratoria migratorioides*) †

During the last five months of 1936, several swarms, often large, were reported in different localities of the provinces of Luanda (in August, October, November and December), Malange (in August and October), Benguela (in August, November and December), Bié (in August, September, October, November and December), and Huila (in August, September, October, November and December).

During September small hopper bands were observed in the province of Huila.

Eritrea: Locusts §

During the month of January, 1937, no locusts were reported in the Colony.

Italy: Recent Phytopathological Researchs ††

The following is a summary of recent and current observations and experiences made at the Royal Station of Plant Pathology, Rome.

Mr. G. Borzini studied a disease of pear trees due to *Stereum purpureum*, Pers. This disease had made its appearance fairly frequently in Italy in recent years, chiefly on the Passe Crassane variety. The affected pear trees do not always show the silvering of the leaves; the contrary is more frequently the case.

Mr. A. Mezzetti observed the decay of pears which occurred in the autumn of 1936 at Grottarossa near Rome. This decay is caused by *Alternaria tenuis*, Nees, and *Macrosporium commune*, Rabh. The varieties most affected were Passe Crassane and Winter Doyenne.

Mr. C. Sibilia studied a disorder in flax stems caused by hail. This trouble manifests itself by the formation of fusiform swellings caused by the excessive

* Under this and the next heading the countries are arranged in French alphabetical order.

† Communication from Mr. JORGE DE BARROS RODRIGUES QUEIROZ, Agricultural ' Ingenieur ' Director of the Laboratory of Plant Pathology and Agricultural Entomology, Luanda, attached as Technical Adviser to the Locust Control Services, transmitted to the Institute by the General Government of the Colony.

§ Communication from the official correspondent of the Institute, Dr. ROLANDO GUIDOTTI, Chief of the Agricultural Bureau of Eritrea, Asmara, transmitted by the Government of the Colony.

†† Communication from the Royal Station of Plant Pathology, Rome, official correspondent of the Institute.

production of hyperplastic tissues. The woody and fibrous tissues undergo the greatest changes: the former increase considerably as regards normal; the latter is seriously injured by the hyperplastic tissues, as the fibres are separated from each other, more or less crushed, and remain immersed, sometimes very deeply, in the new tissues. A beginning of lignification has also been observed in the fibre sheath. This modification renders the swollen tissues useless, owing to the difficulty found in detaching the fibres, which then easily break.

Mr. G. Goidànich is continuing his studies on the parasitical discolorations of timber. He has studied the principal varieties of parasites found up-to-date in Italy on the timber of Conifers. These are:— *Ophiostoma piliferum* (Fr.) Syd., *Graphium penicilloides*, Sacc., *G. silanum*, G. Goid., *Grosmannia serpens*, G. Goid., *Gros. ips* (Rumb.) G. Goid., *Fusicoccum tingens*, G. Goid., *Sphaeropsis ellisii*, Sacc.; he also studied *Trichoderma lignorum* (Tode) Hars and *Trich. köningi*, Oud. The experiences will also be extended to the timber of broad-leaved trees in which respect several important parasites have already be isolated.

Mr. R. Gigante has studied a virus disease of the tomato plant, which appeared in Italy in 1934: the 'fern-leaf', characterized by the irregular growth and deformation of the leaves which frequently become reduced to thread-like formations. This disease has been transmitted by inoculation of the infected juice and by grafting to other tomato plants. On the leaves of tobacco, the disease produces annular necrosed spots.

Madagascar: List of the Parasites and Diseases of Cultivated Plants *

This list concluded in November, 1936, supplements those published in 1932 and 1934 (see this *Bulletin*, 1932, No. 7, pp. 105-107, and 1934, No. 5, pp. 99-100).

COFFEE:

	Corticium koleroga (Cooke) von Höhnel.
	Leptosphaeria sp.
	Pestalozzia sp.
	Triposporium sp.
	Corticium salmonicolor B. and Br.
Witches' broom	
Virescence	
Root rot	*Fomes* ?

VINE:

	Gloeosporium ampelophagum (De Bary) Sacc.
	Cercospora viticola (Ces.) Sacc.
	Pestalozzia uvicola Speg.
Chlorosis	
Suberose	

* Communication from the official correspondent of the Institute, Mr. G. BOURIQUET, Director of the Phytopathological Laboratory and Chief in Charge of the Laboratory of Agricultural Entomology, Pasteur Institute, Tananarive, Madagascar.

MANGO:	
	Gloeosporium and *Colletotrichum* (conidial stage of *Glomerella cingulata* (Ston.) Sp. and Ch.).
VANILLA:	
Sun scald Fluting Chlorosis	A physiological disease.
SUGAR CANE:	
	Ustilago scitaminea Syd. *Triposporium* sp.
Streak Leaf scald	*Bacterium albilineans* Ash.
SISAL HEMP:	
	Colletotrichum agaves Cav.
Leaf spot	Deficiency of phosphoric acid ? *Lasiodiplodia theobromae* (Pat.) Griff. and Maubl.
RICE:	
	Fusarium sp. *Cephalosporium* sp.
TOBACCO:	
	Alternaria tabacina (Ell. et Ev.) Hori. *Cladosporium* sp. *Bacterium solanacearum* E. F. Smith ?
Chlorosis Virescence Streak	
FRENCH BEAN:	
	Cercospora sp. *Bacterium phaseoli* E. F. Smith. *Sclerotium rolfsii* Sacc.
POTATO:	
	Fusarium sp.
ARTICHOKE:	
	Ramularia cinerea Sacc.
GHERKINS:	
	Peronoplasmopara cubensis (Berk. and Curt.) Humphrey.

STRAWBERRY:
Ramularia tulasnei Sacc.

VOANDZEIA SUBTERRANEA:
Ascochyta sp.

BEET:
Cercospora beticola Sacc.

VIGNA CATJANG:
Ascochyta sp.

DAHLIA:
Heterodera radicicola Greeff.

CARNATION:
Septoria dianthi Desm.

CYCLAMEN:
Botrytis cinerea Pers.

Poland: On the Products Used in the Control of Plant Diseases and Pests *

In Poland, the chemical composition and true efficacy of products utilized as fungicides, insecticides, weed killers, etc., are officially controlled. This control, in respect of the chemical composition, is carried out by the Plant Diseases Section at the State Institute of Agriculture, Bydgoszcz. The actual efficacy of the above-mentioned products is determined experimentally on trial plots at the said Institute and at the Institute of Rural Economy, Puławy. The district Stations of Plant Protection, as well as the Agricultural and Horticultural Experiment Stations are also engaged in ascertaining the use of anticryptogamic and insecticidal products.

The manufacture and sale of products, serving as poisons for rats, mice, noxious insects and animal parasites are regulated by ministerial measures. On the other hand, the manufacture and sale of anticryptogamic products are not restricted in Poland by legislative measures, unless containing toxic substances such as strychnine, arsenic, etc.

The import of certain anticryptogamic products into Poland is subject to customs regulations.

Southern Rhodesia: Locust Invasion, 1932-1937 †

Monthly Report No. 50. January, 1937.

The following districts have reported winged swarms of the Red Locust (*Nomadacris septemfasciata*, Serv.) during the month of January, 1937, namely:— Marandellas, Salisbury, Mazoe, Lomagundi, Hartley, Sebungwe, Bulalima-Mangwe and Matobo.

* Communication from the official correspondent of the Institute, Dr. L. GARBOWSKI, Chief of the Plant Diseases Section, State Institute of Agriculture, Bydgoszcz, Poland.

† Communication from the official correspondent of the Institute, Mr. RUPERT W. JACK, F. E. S., Chief Entomologist, Agricultural Laboratory, Department of Agriculture, Salisbury, Southern Rhodesia.

Although no egg-laying was reported during December, hoppers have appeared during the past month in two districts, namely, Lomagundi (in the Zambesi Valley) and Wankie. Both localities are remote and in native occupation only. The necessary steps have been taken for their destruction.

Birds, mainly kites and storks, have been observed following the swarms in great numbers, especially in the northern districts. Infestation with maggots has been recorded in one instance.

Damage to maize has been sustained in several districts.

No reports of egg-laying were received during January, and at the end of the month the position is somewhat uncertain. Some large swarms are still present in the Colony and it appears possible that egg-laying has occurred unnoticed in certain areas. There is, however, no present prospect of any widespread outbreak of hoppers.

Italian Somaliland: Locusts *

During the year 1936 no locusts were reported in the Colony.

No appearance was noted in January, 1937.

LEGISLATIVE AND ADMINISTRATIVE MEASURES

French West Africa. — By Decree No. 2267 S. E. of 25 September, 1936 the customs regulations relating to insecticidal and fungicidal products imported into French West Africa have been modified. (*Journal officiel de l'Afrique occidentale française*, Gorée, 9 janvier 1937, 33e année, nº 1702, p. 47-48).

Argentine Republic. — By Decree No. 95.297 of 28 November, 1936, the purchase is authorized of 10.000 flame throwers required by the ' Dirección de Defensa Agrícola ' of the Department of Agriculture for the purpose of controlling the South American locust [*Schistocerca paranensis*]. (*Boletín Oficial de la República Argentina*, Buenos Aires, 11 de enero de 1937, año XLV, núm. 12.754, pág. 268).

*** The Decree No. 96.066 of 14 December, 1936, giving various measures relating to the export of fresh fruits, establishes, *inter alia*, that only those fruits not attacked by insects, nor affected by any cryptogamic disease, nor by any other physical or mechanical defect detrimental to their external aspect may be placed on the market.

Merchants wishing to export fruits must be inscribed within a requisite time, in a special register kept for this purpose by the ' Dirección de Sanidad Vegetal '.

* Communication from Dr. FERRANTE PAVERI FONTANA, Chief of the Agricultural Bureau of Italian Somaliland, Mogadiscio, transmitted to the Institute by the Government of the Colony.

Any person desirous of exporting fruits must present to the Port Inspection Service for Plant Products, of the above named 'Dirección', an inspection request for export.

Inspection shall take place before and during harvesting of the fruits, up to packing. Following this inspection, a certificate of inspection of origin shall be accorded or refused.

The certificate for export shall be given at the port of embarkment on request and relative inspection. This latter for the purpose of establishing that the consignment of fruits in question is in fact that vised by the certificate of inspection of origin, and to verify the sanitary condition of the product and whether it corresponds to the regulations of the present Decree.

The Ministry of Agriculture may declare unfit for export, fruits from any province, territory, department, district, region, etc., whose sanitary condition shall not be satisfactory. (*Ibid.*, 19 de enero de 1937, núm. 12.761, págs. 610 a 612).

Australia (South Australia). — By Regulation under the Noxious Weeds Act, 1931, dated 2 July, 1936, the plant known as Skeleton Weed (*Chondrilla juncea*) is declared to be a noxious weed throughout the whole of the State for the purposes of the said Act. (*The South Australian Government Gazette*, Adelaide, July 2, 1936, No. 30, p. 2).

India (Bengal). — The Bengal Act XIII of 1936, wich may be called the Bengal Water Hyacinth Act, 1936, assented to by the Governor General on 16 May, 1936, makes better provision for preventing the spread of water hyacinth (*Eichhornia crassipes*) in Bengal and for its destruction. (*The Calcutta Gazette*, May 28, 1936, Part III, Registered No. C 207, pp. [61]-67).

British West Indies (Barbados). — The report on the work of the Department of Science and Agriculture for the year ending March 31st, 1936, recalls also in Section IV, Agricultural legislation during 1935-36, an Act to amend the Cotton Diseases Prevention Act, 1928-31 (1935-38). The Act provides for the employment of Cotton Inspectors during the first two months of the cotton growing season as well as during the close season and the two months previous to the close season as formerly. (Department of Science and Agriculture, Barbados. *Agricultural Journal*, April, 1936, Vol. 5, No. 2, p. 83).

Italy. — By Royal Decree-Law No. 115 of 18 January, 1937, a credit of 1.300.000 lire is entered in the statement of estimated expenditure by the Ministry of Agriculture and Forests for the financial year 1936-1937. Of this sum, 300.000 lire are intended for subsidies to be accorded to proprietors of citrus orchards as a State contribution to the expenses incurred in the control of 'mal secco' [*Deuterophoma tracheiphila*] in Sicily, and also in the reconstruction of citrus orchards, destroyed or infected, during the season 1935-1936; the remaining sum (1.000.000 lire) shall be divided, proportionately and in accordance with the regulations to be established by Decree of the Minister

of Agriculture and Forests, in agreement with the Minister of Finance, as State contribution towards expenses for control and reconstruction during the 1936-1937 season. (*Gazzetta Ufficiale del Regno d'Italia*, Roma, 23 febbraio 1936, anno 78°, n. 45, p. 660).

Mexico. — By ' Acuerdo ' of 25 November, 1936, the Ministry of Agriculture is authorized to establish services for disinfection, especially by means of fumigation, in those districts of the Republic, where there is a lack of these said services, and which from the geographical position and the conditions of agriculture, would be necessary.

The above said Ministry is authorized, in conformance with the dispositions of Articles 16, 68, 69 and 71 of the Regulation of the ' Policía Sanitaria Agrícola ', to conclude the necessary contracts with private enterprises for the purpose of establishing and organizing these services of disinfection in the districts of the Republic where required.

Also, in order to render the operation of the services for disinfection already in existence and officially organized more efficacious, and likewise to encourage the activity of private enterprises, the above-said Ministry is authorized to confer to grantees, if considered necessary, the operation of these services, and to sign a corresponding contract.

By the dispositions of this ' Acuerdo ', the term disinfection is applied to all treatments employed in the destruction of animals, insects or micro-organisms harmful to agriculture, as fumigation in vacuo or under atmospheric pressure, sterilization of any kind, and the application of insecticidal solutions.

In order that these services of disinfection might not greatly overburden agriculture, in the contracts in question, the quotas which the farmers must pay towards this service will be determined, as also the obligation to dispose of the necessary implements and staff so as not to cause any detrimental delays to the economic conditions of the farmers. (*Diario Oficial*, México, 19 diciembre de 1936, tomo XCIX, núm. 32, págs. 3 y 4).

Portugal. — On 3 February, 1937, the ' Direcção Geral dos Serviços Agrícolas ', Bureau of Phytopathological Services, notifies that in conformance with the dispositions of Article 1, paragraph 2, of the Decree-Law No. 27 : 108 of 16 October, 1936 [see this *Bulletin*, 1936, No. 12, p. 270], in areas infected with wart disease (*Synchytrium endobioticum*) and in the protection zones, only the cultivation of the following resistant varieties of potatoes is authorized:—

Varieties with white skin and pulp: ' Arran Banner ', ' Arran Consul ', Majestic ', ' Pepo ', ' Wekaragis ', ' Max Delbrück '.

Varieties with white skin and yellow pulp: ' Ackersegen ', ' Erdgold '.

Varieties with pink skin and white pulp: ' Kerr's Pink '. (*Diário do Govérno*, Lisboa, 13 de fevereiro de 1937, I série, núm. 36, pág. 134).

Rumania * — By Ministerial Decision No. 12288 of 29 January, 1937, part *c* of the second paragraph of article 1 of the Ministerial Decision No. 220852 of 23 October, 1936, decreeing the measures to be taken for preventing the introduction of the Colorado beetle (*Leptinotarsa decemlineata*) [see this *Bulletin*, 1936, No. 12, p. 272] is modified as follows:—

'(*c*) The locality where the products originate is situated at least 50 km. away from the region where the insect has been reported'.

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NOTES

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